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(54) Switched channel-band network

(57) Rather than restricting a stream of data to a single channel within a multi-channel link between a source node and a core node, each channel is divided into time slots and the stream of data is distributed among these time slots in several channels. However, to ease the management of switching the stream of data at the core node, simultaneous time slots in each channel may be arranged into "stripes," such that a particular stripe may only include data segments having a common destination. Switching these stripes of data at the core node requires that the source of such a stripe arrange the frame according to a frame structure provided by the core node. Advantageously, where the frame is striped across an entire link, the present invention provides for a variation on link switching that approaches the topological reach of TDM switching while maintaining relatively straightforward operation at the core node. As the switching scheme requires time-locking between the core node and the source node, methods are provided for initializing, maintaining and recovering this time-locking while offsetting the effect of optical signal dispersion in multi-wavelength fiber links.

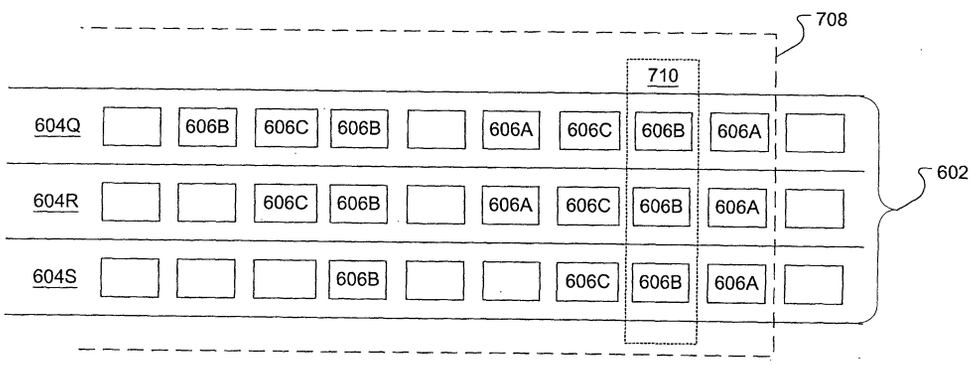

FIG. 7

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EUROPEAN SEARCH REPORT

Application Number
EP 02 25 4725

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	ZANG H ET AL: "PHOTONIC SLOT ROUTING IN ALL-OPTICAL WDM MESH NETWORKS" 1999 IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE. GLOBECOM'99. SEAMLESS INTERCONNECTION FOR UNIVERSAL SERVICES. RIO DE JANEIRO, BRAZIL, DEC. 5-9, 1999, IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, NEW YORK, NY : IEEE, US, vol. VOL. 2, 5 December 1999 (1999-12-05), pages 1449-1453, XP001016946 ISBN: 0-7803-5797-3 * page 1449, left-hand column, lines 31-36 * * page 1450, left-hand column, lines 12-18 * * figure 1 * * page 1451, left-hand column, lines 1-6 * -----	1,2,7, 10,11,14	H04Q11/00 H04Q11/00
X	CHLAMTAC I ET AL: "SCALABLE WDM ACCESS NETWORK ARCHITECTURE BASED ON PHOTONIC SLOT ROUTING" IEEE / ACM TRANSACTIONS ON NETWORKING, IEEE INC. NEW YORK, US, vol. 7, no. 1, February 1999 (1999-02), pages 1-9, XP000823860 ISSN: 1063-6692 * abstract * * figure 3 * ----- -/--	1,2,7, 10,11,14	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H04Q

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	23 July 2004	Dhondt, E

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X : particularly relevant if taken alone
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DOCUMENTS CONSIDERED TO BE RELEVANT

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X	KANNAN R ET AL: "STWnet: a high bandwidth space-time-wavelength multiplexed optical switching network" INFOCOM '97. SIXTEENTH ANNUAL JOINT CONFERENCE OF THE IEEE COMPUTER AND COMMUNICATIONS SOCIETIES. DRIVING THE INFORMATION REVOLUTION., PROCEEDINGS IEEE KOBE, JAPAN 7-11 APRIL 1997, LOS ALAMITOS, CA, USA,IEEE COMPUT. SOC, US, 7 April 1997 (1997-04-07), pages 777-784, XP010252054 ISBN: 0-8186-7780-5 * Paragraphs 2.1;2.2 * -----	10,11,14	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

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